Title (en)

ELECTRONIC TIMEPIECE

Title (de)

ELEKTRONISCHE UHR

Title (fr)

PIÈCE D'HORLOGERIE ÉLECTRONIQUE

Publication

EP 1544694 B1 20120404 (EN)

Application

EP 03748571 A 20030924

Priority

- JP 0312145 W 20030924
- JP 2002276572 A 20020924

Abstract (en)

[origin: EP1544694A1] Using an oscillating unit (601) that can start oscillation with a low voltage, an oscillation signal (S1) of the oscillating unit (601) is amplified via a waveform shaping unit (603), and is fed to a boosting control unit (105). A boosting unit (103) is caused to perform a boosting behavior by a boosting clock (Sa) with the same frequency as an oscillation frequency of the oscillation signal (S1) just after the oscillating unit (601) starts. Thereby, a whole electronic timepiece (100) can be self-actuated, even if a generation voltage is low. Further, the oscillating unit (601) is constituted such that a operating current always becomes constant. Thereby, the electronic timepiece can be provided with an electricity-generating unit (101) such as a solar cell with a one-stage constitution having a low open voltage. <IMAGE>

IPC 8 full level

G04C 10/02 (2006.01); **G04F 5/06** (2006.01); **G04G 19/04** (2006.01); **H02M 1/00** (2007.01); **H02M 1/36** (2007.01); **H02M 1/42** (2007.01); **H02M 3/07** (2006.01); **H03B 5/06** (2006.01); H03B 5/32 (2006.01)

CPC (source: EP US)

G04C 10/02 (2013.01 - EP US); **G04F 5/06** (2013.01 - EP US); **G04G 19/04** (2013.01 - EP US); **H02M 1/36** (2013.01 - EP US); **H02M 1/4225** (2013.01 - EP US); **H02M 3/07** (2013.01 - EP US); **H03B 5/06** (2013.01 - EP US); H03B 5/32 (2013.01 - EP US); Y02B 70/10 (2013.01 - EP US)

Cited by

CN110392975A; US11108320B2; WO2018162133A1; WO2010011118A1

Designated contracting state (EPC)

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EP 1544694 A1 20050622; **EP 1544694 A4 20080618**; **EP 1544694 B1 20120404**; CN 100422879 C 20081001; CN 1701284 A 20051123; JP 4459812 B2 20100428; JP WO2004029735 A1 20060126; US 2005243657 A1 20051103; US 7327638 B2 20080205; WO 2004029735 A1 20040408

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